

ON THE APPLICATION OF THE TERMS MALAYSIA AND MALAYA IN PLANT GEOGRAPHY.

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There is rather a lot of confusion about these terms, as pointed out by HAVILAND (1) so long ago as 1897.

The Malayan language is properly limited to Western Malaysia (Sumatra, Banka, Billiton, Riouw, Lingga, the Malay Peninsula and Anambas-Natoena Islands). It is in common use over the whole of the Netherlands Indies, originally on account of the seafaring habit of the Malays, who introduced their language along all coasts. Hence, the extremely wide distribution of the common Malay language. As soon as one meets inland people, one finds local dialects and languages.

Already H. ZOLLINGER (2) had a good idea of the use of the word Malaysia (Malesia in Latin and German). He rightly proposed to indicate the whole of the tropical flora between Asia and Australia (including the Malay Peninsula) by the word Malaysia.

The Rev. J. E. TENISON-WOODS published in 1889 an essay "On the Vegetation of Malaysia" (3). This is principally concerned with the Malay Peninsula, but it is clear from the text that he used the term Malaysia in a wider sense, though he did not define it exactly. He consistently used the term Malay Peninsula when referring to that area only, and other resident botanists have usually done the same. They tend to avoid the use of the word Malaya, but the term British Malaya is sometimes used. Recently H. J. LAM (4) used the latter term, but in the same article used also the term Malay Peninsula.

H. N. RIDLEY (5) used in general the term Malay Peninsula or Malaya for the Peninsula south of 7°, and Malay Islands for Netherlands India. Most other authors however follow Zollinger's proposal, made 80 years ago, and repeatedly advocated by E. D. MERRILL (6), H. BANCROFT (7), myself (8), H. J. LAM (4), and others.

F. N. CHASEN (9) uses the term Malaysia to comprise only the Sunda shelf (Malay Peninsula, Borneo, Sumatra, Java, with the intervening small islands); BODEN KLOSS also used the term in that sense.

This is in slight contrast with the terms used by ZOLLINGER (2), MERRILL (6) and I. H. BURKILL (10) who call the Sunda shelf region Western Malaysia, in contrast to the Sahul shelf which they indicate as Eastern Malaysia. It must be

said, that ZOLLINGER did not include the whole of New Guinea in his Malesia, but only its westernmost part. This is doubtless to be ascribed to the inadequate knowledge of the Papuan flora at the middle of the 19th century.

Several botanists, *e.g.* BECCARI in his "Malesia" exclude New Guinea from Malaysia, but include Assam, Burma and the Andaman Islands. The same view is held by ENGLER (11), WARBURG (12) and others who include in Malaysia the Indo-Chinese Peninsula, in contrast with ZOLLINGER (2), BURKILL (10) and RIDLEY, who take the NW. boundary of the true Malaysian stock at about 7° N. across the Siamese isthmus, where a rather abrupt change in flora is indicated.

Though nowhere in the world can absolute, pure and abrupt floral regions be distinguished, and gradual transition is the general rule, there is good reason to speak of an Indo-Malayan flora, comprising S.E. Asia and the Indo-Malayan Archipelago, which falls into two subregions; the Indian flora and the Malaysian flora, the latter having a common stock distributed from the Malay Peninsula as far as New Guinea. According to HOOKER, BENTHAM and others the Australian flora is also a modified part of the Indo-Malaysian stock but this dates back to the far past and Australia is to be distinguished nowadays as a separate centre.

Uniformity in the use of the terms, both geographically, historically and phytogeographically, is much to be desired. There are ample reasons for the following definitions:

MALAY PENINSULA, comprising the Malay States and Straits Settlements, is a *topographical* term. In phytogeographical sense its N. boundary is situated at ca. 7° N.

MALAYSIA includes the whole of the Netherlands Indies, Philippines, the Malay Peninsula, Sarawak, Br. N. Borneo, Brunei, Portuguese Timor, Christmas Island, and the whole of the island of New Guinea (Papua). It is a *biogeographical* term.

MALAYA is according to Mr. FURTADO and myself a word which is ambiguous and likely to cause confusion, especially to non-British botanists. There have been made several attempts to restrict it to mean "Malay Peninsula", but even today writers of local history and folklore have to define the word to show what they mean. Only a few years ago the term "Malaya" included Sumatra, Borneo, Rhio Archipelago, etc., so that the use of the term "British Malaya" was not uncommon and was used even on the survey maps of the Peninsula, and there are still books in the Malay Peninsula like "Official Guide to British Malaya". For phytogeographical purposes it would be better to use the word Malay Peninsula and to avoid on the whole the single term "Malaya" which can only give rise to confusion.

- Literature mentioned*.—(1) J. Linn. Soc. Lond. Bot. 33, 1897, 2.
 (2) Natuurk. Tijdschr. Ned. Ind. 13, 1857, 293–322. (3) Proc. Linn. Soc. N.S.W. ser. II, 4, 1889, 9–108. (4) Gard. Bull. S.S. 9, 1936, 99.
 (5) Journ. Bot. 1935, 13; 1934, 251; 1932, 191; 1935, 342; Kew Bull. 1933, 190, etc., (6) Philipp. J. Sc. 23, 1923, 1; Enum. Philip. Fl. pl. 4, p. 11, note 1. (7) Geol. För. Stockh. Förh. 55, 1933, 80, note 3. (8) Bull. Jard. Bot. Btzg. 13, 1933, 136, note 1. (9) Bull. Raffl. Mus. 11, 1935, p. 1. (10) Gard. Bull. Str. Settlem. 3, 1923, 21.
 (11) Versuch einer Entwicklungsgeschichte, etc. vol. 2, 1882.
 (12) Verh. Ges. Deutsch. Naturf. & Äerzte 1890, Allg. Teil.
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